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Corporate Profitability:Investigation of KSE-100 Index Pakistan

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Abstract
The current study is aimed to investigate the relationship between macro-economic and micro-economic variables with firm's profitability at Karachi stock Exchange. Macro-economic variables are measured by using proxies of Inflation rate and per capita income. While, micro-economic variables are measured by using proxies of corporate governance, capital structure, risk management, firm maturity, market valuation of companies and working capital management. The measurement proxies of such variables are mentioned in methodological section. The data is acquired from KSE.100 index within the range from 2005 to 2014 that consists on ten years. And connivance sampling technique is used. The nature of study is panel. Thus, Correlation tests and Hausman's test – Fixed effect model test are implied on study data. The study presented significant results as like prior investigations except hypothesis if inflation rate and Quick acid ratio of working capital management. Thus, one hypothesis from macro-economic variables and none hypothesis from micro-economic variables are rejected.
Keywords: Governance, Capital Structure, Risk Management, Firm Maturity, Tobin's q. Panel Data, Hausman's test.

1. INTRODUCTION

The corporate profitability is most important and pulpy economic indicator for corporate stake holders (Iqbal, Chaudry and Iqbal, 2015). Much of the investigations with various inks are done on this indicator. And plenty of literature is available on it that is proposing various solutions to resolve it. Such past researches are done at micro level that investigated single phenomena - impact on firm profitability. As Mirza & Javed (2014) investigated various determinants impact on profitability and found economic indicators i-e inflation rate negative relationship and per capita income positive relationship with corporate profitability.

Moreover, corporate governance is found significantly correlated with firm profitability (Foerster and Huan, 2004). Later Chavez & Silva, (2006) supported such findings in their study. Thus, it is concluded that corporate governance has significant relationship with firm profitability that shuffles individual's attitude as corporate investor towards stock investment in extended way (Iqbal, Nasir and Bilal, 2015).

It is the corporate profitability that is also affected and integrated with capital structure. Capital structure is net composite amount of debt and equity invested by corporate managers in a pursuit with its optimal reduced costs on investments. Thus, capital structure is found significantly correlated with firm net profitability (Iqbal et al., 2014; Mirza & Javed 2014). Moreover, such capital structure links by its both proxies of measurement and representations i-e short term debt & long term debt with firm profitability (Mirza & Javed, 2014).

A sound capital leads entity for best profitability when other financial matters are moving uniformly. The lack of uniform relation of micro financial activities pinches financial productivity and traps it into various identical risks that make profitability steady. Most harmful risks that shuffle corporate profitability are credit risk and liquidity risk. Thus, credit risk is found negatively correlated with corporate profitability (Iqbal, Chaudry and Iqbal, 2015). Moreover, liquidity risk is also found negatively co-integrated with firm profitability (Iqbal et al., 2014). Hence, by reducing such risks corporate profitability can boost in a bullish way.

Hence, it is proved by historic investigation and become understood that when running financial policy that seems good then the profitability is good. Such running financial policy covers the domain of working capital of corporate entity that comprises the cash conversion cycle, current ratio and quick acid ratio in the context of working capital. Thus, there is significant positive relationship of working capital with profitability. And with the passage of time corporate financial teams, corporate policies and corporate agenda experiences the market that makes company more mature with environment that shows firm maturity positive link with corporate profitability. Such corporate maturity and profitability is measured by various valuation techniques. Thus, such valuation a technique proposed by market and corporate activates has positive association with corporate profitability.

On the base of above literature objective of the study is planned to investigate the relationship of macro-

economic variables i-e inflation rate, per capita income relationship with corporate profitability. Moreover, the objective of the study comprises on the relationship of micro-economic variables or firm specific factors relationship with corporate profitability that included corporate governance, capital structure, risk management, firm maturity and working capital management.

Corporate profitability is widely investigated variable in the field of corporate and emerging finance. But with rich conceptual and theoretical frame work of the study like current study in Pakistani context is not much investigated that clarifies theoretical and interpretational gap of the study. Moreover, study will reveal key implications for corporate theorists, practitioners and new scholars of this domain specifically in Pakistani context.

The scheme of the paper comprises on part one that explains objective, literature and scheme of the study. Part two explains study methodology. Part three narrates and tabulates study results. And part four concluded study findings and recommendations.

2. STUDY METHODOLOGY

The study is correlation in nature that is planned to explain the nature of macro-economic and micro-economic variables relationship with corporate profitability. Study contains on the one dependent variable as corporate profitability. In independent variables study contains on two macro-economic variables i-e inflation rate and per capita income and six micro-economic variables including corporate governance, capital structure, risk management, working capital, market valuation and corporate maturity.

Corporate governance includes quality corporate governance index, capital structure is measured by debt ratio, risk management is measured by credit risk and liquidity risk, working capital is measured by current ratio and acid-test ratio, market valuation is measured by Tobin's-q and firm maturity by average of company life years.

In current study sample is randomly selected from Karachi stock exchange that consists of 178 companies of various sectors. The data of the study is acquired through various sources but specifically KSE index database and state bank of Pakistan database are used. Moreover, yahoo finance database and World Bank database are also considered in current study. The sample range of the data consists of ten years i-e Jan-2005 to Dec 2014. Moreover, connivance sampling technique is used to acquire the data in way to acquire data more easily. And in study instrumentation descriptive analyses, correlation analyses and fixed effect model test are executed because of panel data study.

So the hypothesis of the study suggested by historic investigations are given as below,

H1: There is positive relationship between inflation rate and corporate profitability.
H2: There is negative relationship between per capita income and corporate profitability.
H3: There is positive relationship between corporate governance and corporate profitability.
H4: There is positive relationship between debt ratio and corporate profitability.
H5: There is negative relationship between credit risk and corporate profitability.
H6: There is negative relationship liquidity risk and corporate profitability.
H7: There is positive relationship between current ratio and corporate profitability.
H8: there is positive relationship between acid-test ratio and corporate profitability.
H9: There is positive relationship between Tobin's q and corporate profitability.
H10: There is positive relationship between firm maturity and corporate profitability.

On the bases of above hypotheses of the study the econometric model is,

$$\boldsymbol{y} = \propto + \boldsymbol{\beta 1}(\boldsymbol{MEI}) + \boldsymbol{\beta 2}(\boldsymbol{CG}) + \boldsymbol{\beta 3}(\boldsymbol{CS}) + \boldsymbol{\beta 4}(\boldsymbol{RM}) + \boldsymbol{\beta 5}(\boldsymbol{WC}) + \boldsymbol{\beta 6}(\boldsymbol{MV}) + \boldsymbol{\beta 7}(\boldsymbol{FM}) + \boldsymbol{e}$$

Thus, the explanation of study model is presented in table 01 as below,

Table 01
Model Representation & Measurement

Abbreviation	Variable Name	Proxies	Measurement
Y	Profitability	Profitability	= Earnings before taxes/Total Assets
MAI	Macro-economic Indicators	Inflation Rate	
		Per Capita Income	
CG	Corporate Governance	Corporate Governance Quality	Board Structure
			Ownership Structure
			Audit Committee Independence
CS	Capital Structure	Debt Ratio	= Total Debt/ Total Assets
RM	Risk Management	Credit Risk	= Loan Loss Provision/ Total Assets
		Liquidity Risk	= Total Capital/Total Assets
WC	Working Capital	CR	= Current Assets/Current Liabilities
		QAR	= Current Assets – Inventory /Current Liabilities
MV	Market Valuation	Tobin's q.	= Market Value of Equity+ Liquidity value of preferred shares+ Debt/Total Assets
FM	Firm Maturity	Firm Maturity	=Current Year – Firm Established Year

3. RESULTS & INTERPRATATION

Table 02
Descriptive Statistics

Variable	Mean	Standard Deviation
Profitability	29.77	36.94
Inflation Rate	17.54	12.00
Per Capita Income	11.04	3.88
Governance Quality	.3781	.3911
Debt Ratio	44.80	67.02
Credit Risk	14.56	17.21
Liquidity Risk	17.45	21.67
Current Ratio	2.99	3.11
Quick-Acid Ratio	4.04	4.91
Tobin's q.	443580.142	477822.116
Firm Maturity	9.56	17.32

In table 02 descriptive statistics results are reported. Thus, the mean value of profitability is 29.77, inflation rate 17.54, per capita income 11.04, governance quality (corporate governance) 0.3781, debt ratio 44.80, credit risk 14.56, liquidity risk 17.54, current ratio 2.99, quick acid ratio 4.04, Tobin's q. 443580.142 And firm maturity value is 9.56 respectively. Moreover, standard deviation value of profitability is 36.94, inflation rate 12.00, per capita income 3.88, governance quality .3911, debt ratio 67.02, credit risk 17.21, liquidity risk 21.67, current ratio 3.11, quick acid ratio 4.91, Tobin's q. 477822.116 And firm maturity value is 17.32 respectively.

Table 03
Correlation Analysis

	P	IR	PCI	GQ	DR	CRK	LR	CRT	QAR	TQ	FM
P	1										
IR	.02*	1									
PCI	.34*	.39*	1								
GQ	.23*	.30*	.34*	1							
DR	.31*	.37*	.41*	.44*	1						
CRK	.56*	.62*	.677*	.71*	.741*	1					
LR	.07*	.11*	.16*	.21*	.274*	.28*	1				
CRT	.11*	.14*	.19*	.22*	.241*	.270*	.31*	1			
QAR	.09*	.13*	.16*	.18*	.211*	.247*	.277*	.321*	1		
TQ	.44*	.47*	.49*	.511*	.543*	.571*	.601*	.644*	.696*	1	
FM	.003*	.012*	.018*	.21*	.251*	.257*	.277*	.282*	.29*	.213*	1

Significance level = (*) = p value < 0.05
Profitability (p), Inflation Rate (IR), Per capita Income (PCI), Governance Quality (GQ), Debt Ratio (DR), Credit Risk (CRK), Liquidity Risk (LR), Current Ratio (CRT), Quick Acid Ratio (QAR), Tobin's q. (TQ), Firm Maturity (FM)

In above table results of correlation are reported of the study. Thus, inflation rate is correlated with per capita income at .02* (p<.05). Per capita income is correlated with corporate governance quality with .34* (p<.05) & .39* (p<.05). Governance quality is correlated with debt ratio with .23* (p<.05), .30* (p<.05) & .34* (p<.05). Debt ratio is correlated with credit risk with .31* (p<.05), .37* (p<.05), .41* (p<.05) & 0.44* (p<.05). Credit risk is correlated with liquidity risk with .56* (p<.05), .62* (p<.05), .667* (p<.05), .71* (p<.05) & .741* (p<.05). Liquidity risk is correlated with current ratio with .07* (p<.05), .11* (p<.05), .16* (p<.05), .21* (p<.05), .247* (p<.05), & .28* (p<.05). Current ratio is correlated with quick acid ratio with .11* (p<.05), .14* (p<.05), .19* (p<.05), .22* (p<.05), .241* (p<.05), .270* (p<.05), .277* (p<.05), & .321* (p<.05). Moreover, quick acid ratio is found correlated in this study in correlation table with Tobin's q. with .09* (p<.05), .13* v, .16* (p<.05), .18* (p<.05), .211* (p<.05), .247* (p<.05), & .321* (p<.05). Tobin's q. is found correlated with firm maturity with .44* (p<.05), .47* (p<.05), .49* (p<.05), .511* (p<.05), .543* (p<.05), .571* (p<.05), .601* (p<.05), .644* (p<.05) & .696* (p<.05). Finally, firm maturity is correlated with firm's profitability with .003* (p<.05), .012* (p<.05), .018* (p<.05), .21* (p<.05), .251* (p<.05), .257* (p<.05), .277* (p<.05), .282* (p<.05), .29* (p<.05) * .213* (p<.05) respectively.

Table 03
Fixed Effect Model

Variables	β	Significance	Prior Relation	Current Relation	Hypothesis Region
C	12.0783	.047			
Inflation Rate	-.4435	.057	Positive	Negative	Rejected
Per Capita Income	3.7415	.034	Positive	Positive	Accepted
Governance Quality	.3624	.025	Positive	Positive	Accepted
Debt Ratio	.0073	.005	Positive	Positive	Accepted
Credit Risk	-0.6573	.039	Positive	Positive	Accepted
Liquidity Risk	-.5557	.049	Positive	Positive	Accepted
Current Ratio	5.2734	.002	Positive	Positive	Accepted
Quick-Acid Ratio	-.4771	.065	Positive	Negative	Rejected
Tobin's q.	7.568	.000	Positive	Positive	Accepted
Firm Maturity	11.573	.003	Positive	Positive	Accepted

The table 03 reveals the results of fixed effect model that represents the matter of association of independent variables proxies with dependent variable, matter of significance and co-integration of results with hypotheses. Thus, the value of beta of constant is 12.0783 and significance is .047 (p<.05). Moreover, from micro-economic variables inflation rate is found insignificant with -.4435 beta value and .057 (p>.05). And hypothesis is rejected because results are not correlated with prior studies. Per capita income is found positively correlated with 3.4715 beta value and significant with .034 (p<.05). And hypothesis is accepted.

Corporate governance is found positively correlated with beta value as .3642 and significance value is .025 (p<.05) and hypothesis is accepted. Hypothesis of debt ratio is accepted because of its positive relation as per prior investigations with beta value of .0073 and significance level .005 (p = .05). Credit risk is found negatively significant with the value of beta -0.6573 and significant with .039 (p<.05) and hypothesis is accepted. And liquidity risk is also found negatively significant with the beta value as -.5557 and significance value .49 (p<.05).

From working capital in table 03 the current ratio is found positively significant with beta value as 5.2734 and significant as .002 (p<.05). But the value of quick acid ratio is found insignificant because it is negatively correlated with profitability with beta value as .4771 and .006 (p>.05). Thus, the hypothesis is rejected. In above table firm maturity and market valuation are found positively correlated and prone as significant with corporate profitability as the beta value 11.57, 7.568 with the significance values as .003 (p<.05) & .000 (p<.05) respectively. Hence, both the hypothesis is accepted.

4. CONCLUSION

In current investigation from macroeconomic variables hypothesis of inflation rate with corporate profitability is rejected and has contradicted with previous studies because in Pakistan there is lack of economic & financial procedures about inflation rate. While, in Pakistani economic policies there is lack of harmony and uniformity about inflation rate specifically. Moreover, during sample of investigation Karachi stock exchange has experienced by various political governments i-e Pakistan Muslim League – Quid, Pakistan People's Party and now by Pakistan Muslim League – Nawaz. Such political regimes were started and ended with their own matters of interest. Thus, inflation rate in all these three regimes remained conflicted. Therefore, it is the inflation rate that has negatively shuffled interest rate, bank deposits, borrowing lending rate, money supply and many other economic indicators. The hypothesis of Quick-acid ratio is also rejected in current study that is contradicted with past investigations. Such hypothesis is rejected because of lack of awareness to corporate financial executive,

lack of inventory management procedures or lack of self-interest to manage inventory and working capital. While, all other variables correlated with firm profitability in positive manners and risk management in negative manners as significant. Hence, all other hypotheses are accepted.

Managerial Implications

The economic managers should plan and launch the proper procedure for inflation and other economic indicator's on which there should be less impact of state government policies and political influences.

While, corporate finance managers and executives should also launch proper procedures for inventory and working capital management for the purpose that organizations may boost their profitability and corporate market value.

Such economic and financial are not still improved due to lack of economic trainings, workshops and seminars. Such kind of programs should be executed at national level and across the globe.

5. FUTURE RESEARCH DIRECTIONS

The future research could be conducted in following ways,

a) In current research vast sample is elaborated and tested. By considering current study model and sample range comparative analyses during above mentioned three political regimes should be tested to find that which political regime has provided economic oriented policies that boosted profitability in Karachi stock exchange index.
b) Another study could be plan in a way that by incorporating inventory management procedures and by managerial policies does corporate profitability shuffles positively or not.
c) Moreover, a study could be investigated on current study model by comparing other Islamic economies profitability with Karachi stock exchange.

REFFERANCES

G. A. Chavez and A. C. Silva, "Improved Corporate Governance: Market Reaction and Liquidity Implication,"*Institute de Empresa Business School Working Paper, 2006, pp. 1-24.*

S. A. Mirza& A. Javed, (2013). Determinants of Financial Performance of a Firm: Case of Pakistani Stock Market. *Journal of Economics and International Finance. Vol. 05, No. 02, pp.45-56*

S. Iqbal et al., (2014). Capital Structure Antecedents. A Case of Manufacturing Sector of Pakistan. *International Journal of 360º Management Review. Vol 02. Issue 02 (2014)*

S. Iqbal et al., (2015). Impact of Liquidity risk on Firm Specific Factors. A Case of Islamic Banks of Pakistan. *Journal of Business and Management Research. Vol. 09 pp. 256-260.*

S. Iqbal, S. N. Chaudry & D. N. Iqbal., (2015). Impact of Firm Specific Factors on Credit Risk; A Case of Karachi Stock Exchange. *Research Journal of Finance and Accounting. Vol. 11, No. 06 (2015)*

S. Iqbal, S. Nasir & S. Bilal, (2015). A spill over Relationship – Corporate Governance and Investor Reaction. A Case of Karachi Stock Exchange. *Journal of Poverty, Investment & Development, Vol 12 (2015)*

S. Iqbal, S. Nasir, & D. N. Iqbal,, (2015). Working Capital Management Antecedents impact on Firm Specific Factors: A Ten Year Review of Karachi Stock Exchange.*Journal of Poverty, Investment and Development. Vol. 13, (2015)*

S. R. Foerster & B. C. Huen, (2004)."Does Corporate Governance Matter to Canadian Investors?" *Canadian Investment Review* (*Fall*), 2004, pp. 19-25.